

**State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD LOS ANGELES
REGION**

GENERAL WATER REUSE ORDER NO. R4-2009-XXX

**GENERAL WASTE DISCHARGE AND WATER RECYCLING REQUIREMENTS
FOR
TITLE 22 RECYCLED WATER**

**FOR USE OVER THE
GROUNDWATER BASINS UNDERLYING THE COASTAL WATERSHEDS OF LOS
ANGELES AND VENTURA COUNTIES**

(File No. 08-155)

The California Regional Water Quality Control Board, Los Angeles Region, (Regional Board), finds:

PURPOSE AND APPLICABILITY

1. The Regional Board has declared its intent to promote the use of disinfected recycled water^{1,2} (recycled water). Recycled water is a coagulated¹ and filtered¹ wastewater, which is reused as a valuable resource and significant component of California's water supply.
2. This Order serves as a General Water Reuse Order (General Order) authorizing municipal wastewater reuse by Producers¹, Distributors¹ and Users¹ of non-potable recycled wastewater throughout the Los Angeles Region (Region).
3. For this General Order, "recycled water" is limited to recycled water produced by a public entity at a municipal wastewater treatment plant, as defined in CWC section 13625(b)(1) and section 13625(b)(2). This General Order is not applicable for the use of water produced from the treatment of other wastewaters (e.g., oil field production, food processing, storm water, etc.) at other types of treatment facilities (e.g., industrial wastewater treatment plants).
4. The intent of this Order is:
 - A. To streamline the permitting process and delegate the responsibility of administrating water reuse programs to local agencies to the fullest extent possible.

¹ See Attachment A for definition.

² The terms "recycled water" and "reclaimed water" have the same meaning (CWC section 26).

- B. To serve as a region-wide general permit for publicly owned wastewater and water agencies¹ that recycle treated municipal wastewater, and to apply to the following suppliers of recycled water:
- a. Producers of disinfected secondary¹- and tertiary¹-treated recycled water that meets California Code of Regulations (CCR) Title 22 water recycling criteria¹ (Attachment B) and is reused for a direct beneficial use or a controlled use that would not otherwise occur.
 - b. Distributors of recycled water - who receive treated wastewater from a municipal wastewater facility, whether or not they provide additional treatment to meet CCR Title 22 water recycling criteria for its intended use(s) and who distribute it to Users. In some cases, a written agreement (e.g., Joint Powers Agreement or equivalent contractual agreement) between a Producer and a Distributor may be preferable to enrolling the Distributor under this Order.
5. Water reuse is an essential part of an overall program to manage local and regional water resources. Many local governing bodies have adopted resolutions establishing their intent to proceed with the planning, permitting, and implementation of water reuse projects. In addition, Section 13510 of the California Water Code states that:
- "It is hereby declared that the people of the state have a primary interest in the development of facilities to recycle water containing waste to supplement existing surface and underground water supplies and to assist in meeting the future water requirements of the state."
6. Further, Section 13550 of the California Code states that:
- "The Legislature hereby finds and declares that the use of potable domestic water for nonpotable uses, including, but not limited to, cemeteries, golf courses, parks, highway, landscaped areas, and industrial and irrigation uses, is a waste or an unreasonable use of the water within the meaning of Section 2 of Article X of the California Constitution if recycled water is available which meets all of the following conditions, as determined by the state board..."

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REUSE FACILITIES AND THEIR RESPONSIBILITIES

7. Most of the publicly owned wastewater treatment works (POTWs) in the Region, hereinafter referred to as the Producers, produce treated wastewater of sufficient quality to allow its reuse for certain applications as prescribed in this Order. Water service agencies also have authority under the provisions set forth in this Order to

distribute recycled water within their respective jurisdictions. The Producers are now covered under individual water recycling requirements primarily for irrigation uses. However, they have expressed an interest in expanding recycled water for other uses not covered by their current water recycling requirements, such as dust control or street sweeping.

8. POTWs provide recycled water that receives at least secondary level treatment with appropriate disinfection to Distributors or Users under written agreements with the participating Producers/Distributors respectively. The recycled water meets the quality criteria established by California Department of Public Health¹ (CDPH) and this Order. Additional treatment by the Producer or Distributor may be necessary to meet the intended use. The Producers or Distributors are responsible for insuring that water reuse is adequately monitored through an approved program (See Attachment C).
9. Decisions regarding any changes of treatment and distribution facility construction, operation, funding, cost-sharing and related aspects are the responsibility of the Producers, Distributors and affected Users. The decisions shall be submitted at least 120 days prior to any changes to the CDPH and the Regional Board for approval.

STATE RECLAMATION PLANS, POLICIES AND REGULATIONS

10. In July 1992 Section 13523.1 was added to the California Water Code, authorizing regional boards to issue master reclamation permits³ to a Producer and/or Distributor of recycled water in lieu of prescribing individual water reuse requirements for a User of recycled water. Section 13523.1 also removes the requirement, except upon written request of a regional board, that Users file a report with a regional board to use recycled water from a producer/distributor for whom a master reuse Order has been issued. Similarly, it exempts any such User of recycled water from the requirement to file a report with a regional board related to any material change in the character of the recycled water or its use.
11. The State Board adopted Resolution No. 77-1, Policy with Respect to Water Reclamation in California, which includes principles that encourage and recommend funding for water recycling and its use in water-short areas of the State. On September 26, 1988, the Regional Board also adopted Resolution No. 88-012, Supporting Beneficial Use of Available Reclaimed Water in Lieu of Potable Water for the Same Purpose, which encourages the beneficial use of recycled wastewater and supports water recycling projects.

³ A benefit of master reclamation permits is that individual recycled water users are not required to seek individual coverage permits from a regional board, thereby avoiding additional regulatory burdens and costs. Producers and/or Distributors that operate pursuant to a master reclamation permit shall be allowed to retain coverage under the master reclamation permit.

12. A February 24, 2004 State Board memorandum from Celeste Cantú to the Regional Board Executive Officers entitled “Incidental Runoff¹ of Recycled Water”, provided recommendations regarding regulatory management of incidental runoff. The memorandum stated: To further the goal of maximizing the use of recycled water, the water quality laws should be interpreted in a manner that is consistent with the intent of the Legislature to promote recycled water use. Consequently, incidental runoff from recycled water projects shall be handled as follows:
- A. Where reclamation requirements prohibit the discharge of waste to waters of the State and discharges are not expected to occur, occasional runoff should not trigger the need for either an individual NPDES permit or enforcement action.
 - B. If discharges from reclamation project area occur routinely, such discharges can be regulated under municipal storm water NPDES permit in most cases.
 - C. In limited cases, where necessary to address a water quality concern, discharges of recycled water to surface waters may be regulated under an individual NPDES permit. An NPDES permit, however, should not be issued unless necessary to achieve water quality objectives.

The memorandum also describes the framework for regulating incidental runoff from irrigation systems and from storage ponds without issuing such an NPDES permit.

STATE HEALTH REGULATIONS

13. Section 13523 of the California Water Code provides that a Regional Board, after consulting with and receiving recommendations from CDPH or its delegated local health agency, and after any necessary hearing, shall, if it determines such action to be necessary to protect the health, safety, or welfare of the public, prescribe water recycling requirements for water that is used or proposed to be used as recycled water. Section 13523 further provides **at a minimum** that the recycling requirements shall include, or be in conformance with, the statewide water recycling criteria established by CDPH pursuant to Water Code section 13521.
14. Pursuant to California Water Code section 13523, the Regional Board has consulted with the CDPH regarding this General Order and the types of proposed recycling projects to be covered by this General Order. The Regional Board has incorporated CDPH’s recommendations in this Order.
15. The requirements contained in this Order are in conformance with the goals and objectives of the Basin Plan and implement the requirements of the California Water Code and Title 22 California Code of Regulations, Chapter 3 Water Recycling Criteria.

16. The information required by this General Order is necessary to determine compliance with this General Order and to ensure compliance with the CWC and the Title 22 Requirements. Improper use or discharge of recycled water represents a threat to the quality of waters of the state and to human health and the environment. A completed Notice of Intent⁴ (NOI) form (Attachment D) identifies the entities responsible for ensuring proper production, distribution, and/or use of recycled water in accordance with this General Order.
17. A 1996 Memorandum of Agreement (MOA) between the CDPH and State Water Resources Control Board (State Board) on behalf of itself and the Regional Boards regarding the use of recycled water allocates primary areas of responsibility and authority between these agencies. The MOA provides methods and mechanisms necessary to ensure ongoing and continuous future coordination of activities relative to the use of recycled water in California. This General Order includes requirements consistent with the MOA.

WATER QUALITY CONTROL PLAN FOR THE LOS ANGELES REGION

18. The Board adopted a revised Water Quality Control Plan for the Los Angeles Region (Basin Plan) on June 13, 1994 prescribing water quality objectives for ground and surface waters throughout the Region. The State Board approved it on November 17, 1994, with approval from the State Office of Administrative Law on February 23, 1995.

Protection of Beneficial Uses

The Basin Plan identifies existing and potential beneficial uses of the Region's underlying groundwaters as:

- A. Municipal and domestic supply;
- B. Industrial Service and Process Supply; and,
- C. Agricultural Supply.

SPECIFIED USES OF RECYCLED WATER

19. The Regional Board finds that the following uses of recycled water present a low risk to the beneficial uses of ground water when they meet Title 22 requirements and are applied in a manner where runoff to surface waters or saturation of underlying soils does not occur. In addition, the following uses are generally short-term:

⁴ All responsible entities (Producer, Distributor, and User), as determined by those involved in the project, shall have a duly authorized representative sign the Notice of Intent form for the Use Area. See Attachment D for Notice of Intent form.

- A. Industrial boiler feed;
- B. Nonstructural fire fighting;
- C. Backfill consolidation around nonpotable piping;
- D. Soil compaction; Mixing concrete;
- E. Dust control on roads and streets;
- F. Cleaning roads, sidewalks, and outdoor work areas; and,
- G. Industrial process water that will not come into contact with workers.

CEQA AND PUBLIC NOTICE

- 20. The proposed uses of recycled water will maintain and enhance natural resources and preserve potable sources of water, and thus this Order is categorically exempt from the provisions of the California Environmental Quality Act in accordance with Title 14, California Administrative Code, Chapter 3, Section 15307.
- 21. The Board has notified the Producers, Distributors and interested agencies and persons of its intent to prescribe water reuse requirements and has provided them the opportunity for a public hearing and to submit their written views and recommendations.
- 22. The Regional Board, in a public meeting, heard and considered all comments pertaining to this General Order.

IT IS HEREBY ORDERED, that all responsible entities (Producers, Distributors, and Users) shall submit a Notice of Intent for the Use Area, or a separate report of waste discharge. Entities that file a Notice of Intent indicating their intention to be regulated under the provisions of this general order and receive program authorization from this Board shall comply with the following:

A. PROHIBITIONS

- 1. The treatment, storage, distribution, or reuse of recycled water shall not create a nuisance as defined in Section 13050(m) of the California Water Code.
- 2. No recycled water shall be applied to Use Site Area¹ (Site or Use Area) during periods when soils are saturated.
- 3. Recycled water shall not be allowed to escape from the designated use area(s) as surface flow that would either pond and/or enter waters of the state.

- Secondary-treated recycled water as described under Section B shall not be allowed to escape from the designated use area(s) as an airborne spray that would visibly wet vegetation or any other surface.
4. Spray or runoff shall not enter a dwelling or food handling facility, and shall not contact any drinking water fountain, unless specifically protected with a shielding device, such as a piece of plastic cover.
 5. Recycled water shall not be applied in groundwater recharge and wellhead protection areas.
 6. The use of recycled water shall not cause or contribute to rising groundwater to impair surface water quality objectives or beneficial uses.
 7. Recycled water shall not be used as a domestic or animal water supply.
 8. There shall be no cross-connection between potable water supply and piping containing recycled water. All Producers, Distributors, and Users of recycled water shall provide for appropriate backflow protection for potable water supplies as specified in Title 17, Section 7604 of the California Code of Regulations or as specified by CDPH.
 9. The discharge of recycled water by any Producer, Distributor, or User pursuant to this General Order is prohibited unless interested entities have submitted a complete NOI, Operation & Maintenance Plan (see Section D.9), and application fee.
 10. The use of recycled water in a manner different than described in the Operation & Maintenance Plan is prohibited.

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B. RECYCLED/REUSE WATER QUALITY REQUIREMENTS AND LIMITATIONS

1. Reuse Water Quality Requirements and Limitations of this Order shall meet the most current CCR Title 22 regulations.
2. The Producers/Distributors shall discontinue delivery of recycled water for intended reuse projects during any period in which it has reason to believe that the limits for that use as specified below or the requirements of the CDPH reuse criteria insofar as they relate to the quality of the recycled water, are not being met. The delivery of recycled water shall not be resumed until all conditions which caused the violations have been corrected.
3. Minimum Recycled Water Quality- Secondary - 23 Recycled Water (Restricted Use)

Water to be recycled for reuse shall at a minimum be adequately oxidized and disinfected water that receives at least secondary level treatment and meets, at a minimum, the following limits:

- a. Dissolved Oxygen 1.0 mg/l minimum
- b. Dissolved Sulfide 0.1 mg/l maximum
- c. Total Coliform: All water recycled for reuse authorized under this permit must meet the total coliform limits specified below (at either the Producer's wastewater treatment plant or, if necessary, after additional treatment at a Distributor's plant) prior to delivery for reuse purposes.

After adequate contact with disinfectant the number of total coliform organisms shall not exceed:

- i. A median value of 23 MPN/100ml as determined from the bacteriological results of the last seven days for which sample analyses have been completed; and,
 - ii. A maximum value of 240 MPN/100ml in more than one sample in any 30 day period.
- d. Reuse Applications:

At a minimum, secondary-23 recycled water may be used where the public has restricted access or exposure for the following reuse applications:

- i. Industrial boiler feed;
- ii. Nonstructural fire fighting;
- iii. Backfill consolidation around nonpotable piping;
- iv. Soil compaction; Mixing concrete;
- v. Dust control on roads and streets;
- vi. Cleaning roads, sidewalks, and outdoor work areas;
- vii. Industrial process water that will not come into contact with workers; and,
- viii. Flushing sanitary sewers.

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4. Recycled Water Storage Limitations

- a. Any storage facility containing recycled water for reuse applications shall be managed in a manner to control odor or nuisance conditions. Should such problems develop, a management plan shall be devised and implemented to monitor, correct, and control future occurrences.
- b. All wastewater storage ponds shall be adequately protected from erosion, washout and flooding from a 24-hour rainfall event having a predicted frequency of once in 100 years.
- c. The storage of recycled water within 100-feet of a domestic well, unless approved by the CDPH, is prohibited.

C. REUSE PROGRAM PROVISIONS

1. Producer Responsibilities

- a. The Producers intending to be covered under this General Water Reuse Order shall submit a NOI.

Producer responsibilities in this section may be required of or undertaken by the Distributor as determined between them. In such case the Distributor shall submit the NOI or the Producer shall show evidence of an agreement with the Distributor to undertake the responsibilities. In any case respective responsibilities shall be spelled out in the joint agreement, which must be submitted with the NOI.
- b. This Order becomes effective upon written approval of the NOI by the Executive Officer.
- c. The Producers shall develop administrative procedures specifying how the permit based system, based upon General Water Reuse Order No. R4-2009-XXXX, for regulating Distributors and/or Users will be implemented and how compliance with the CDPH reuse criteria will be ensured. The Producers may authorize specific reuse projects on a case-by-case basis once the administrative procedures of the water reuse program are established.
- d. The Producers or Distributors (as appropriate) shall submit to CDPH for review and approval documentation of the proper installation of Title 22 mandated backflow prevention devices and the absence of cross connections prior to commencing use of recycled water at Sites¹ (Attachment E) meeting any of the following criteria:

- i. Where the proposed use is a new use that is not covered in the CDPH reuse criteria.
- ii. Dual plumbed systems¹ (per Title 22 definition - within building plumbing and residential irrigation).
- iii. Large, high volume usage, or otherwise complex Sites as defined in the Producer's Water Reuse Program (pursuant to Provision D.3.).

The Producers or Distributors (as appropriate) shall also submit a copy of the CDPH's approval to the Regional Board within 30 days upon receiving of the CDPH's approval.

- f. The Producers will be responsible for ensuring that recycled water meets the quality standards of this Order and for the operation and maintenance of major transport facilities and associated appurtenances. The Producers shall hold the Distributors and/or Users responsible for the application and use of recycled water on their designated Use Areas and associated operations and maintenance in accordance with all applicable Title 22 reuse criteria requirements.
- g. The Producers shall conduct periodic inspections of the Users' facilities and operations to monitor and ensure compliance with conditions of the Producers' permits and this Order. The Producers shall take whatever actions are necessary, including the termination of delivery of recycled water to the Users, to correct any violations.
- h. The Producers shall comply with all applicable items of the attached Standard Provisions and Reporting Requirements, or any amendments thereafter.
- i. When additional Site specific requirements and/or Provisions are applied to a reuse project as a condition of adoption of this Order, they shall be identified in the NOI.

2. **Joint Responsibilities**

- a. Each Distributor and/or User shall demonstrate to the Producers the means by which all applicable use area requirements, as specified in CDPH reuse criteria, will be complied with. Each User shall comply with the applicable uniform region-wide recycling criteria established pursuant to CWC section 13521 (Title 22 section 60301 et. seq.).
- b. If someone other than the User (User's Agent) is responsible for applying the recycled water, e.g. a truck hauler, then the User shall require them of

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these requirements in a written permit or other suitable manner. A User's Agent shall fill out a Recycled Water Release Form or equivalent tracking documentation when receiving recycled water from the Producer.

- c. A copy of the General Order must be provided to the Distributor(s) and/or Users by the Producer. The Distributor(s) and/or Users must have these available at all times for inspection by Regional Board staff, the Producer, or State/County Health Officers.
- d. The Producers shall comply with the self-monitoring program as adopted by the Board and as may be amended by the Executive Officer. The Producers are responsible for all necessary information from Distributors and/or Users. Distributor(s) and/or Users are responsible for submitting on-site observation reports and use data to each Producer, who will compile and file an annual report with the Regional Board. The Producer, at its discretion, may assume the Distributor(s)' and/or Users' responsibility for on-site observation reports and use data.
- e. The Producers shall ensure that cross-connections between potable water and nonpotable water systems have not been created and that backflow prevention devices are in proper working order by conducting or requiring User testing, in accordance with CDPH reuse criteria and CCR Title 22 Section 7605. Reports of testing and maintenance shall be maintained by the Producers.
- f. The Producers, Distributors (if any), and Users shall maintain in good working order and operate any facility or control system installed by the Producers, Distributors (if any), and Users, respectively, to achieve compliance with the water reuse requirements.
- g. The Producers, Distributors (if any), and Users shall receive appropriate employee training to ensure proper operation of recycling facilities, and compliance with this Order. In accordance with CCR Title 17, Section 7586, each Producer, Distributor (if any), and User shall designate a Recycled Water Supervisor¹ responsible for compliance with a Producer's permit conditions.
- h. The Producers, Distributors (if any), and Users shall ensure that all above ground equipment, including pumps, piping, storage reservoir, and valves, etc. which may at any time contain recycled water shall be adequately and clearly identified with appropriate warning signs. The Producers, Distributors (if any), and Users shall inform the public that the liquid being distributed is recycled water and is unfit for human consumption.

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- i. When street sweeping (including road, sidewalk, and outdoor work area cleansing) uses both recycled water and potable water, the Producers, Distributors (if any), and Users shall ensure cross-connection protection by complying with the following:
 - i. Each vehicle shall have two risers, one for potable and one for recycled water. An air gap separation between the riser outlet and water tank shall be provided;
 - ii. The risers, hoses and fittings for each supply shall be color coded (painted), blue for potable and purple for recycled water;
 - iii. The hoses, hydrants and risers for each supply shall have separate and unique fittings (e.g., 2-1/2 inch diameter on the potable system and 2 inch diameter on the recycled water system) such that the potable system cannot accidentally be used on the recycled system and vice versa;
 - iv. Signage shall be placed on each vehicle identifying it as carrying nonpotable /recycled water and incorporate the wording “**RECYCLED WATER – DO NOT DRINK**” and the international symbol as shown in Page B-10 of Attachment B; and,
 - v. Vehicle used for street sweeping shall be restricted for delivering potable water for human consumption.
- j. Each Producer and/or Distributor shall have an Operation and Maintenance Plan (O&M Plan) in place, which contains the following elements:
 - j. A detailed operations plan for the Use Area including methods and procedures for implementation of regulations regarding recycled water use and maintenance of equipment and emergency backup systems to maintain compliance with the conditions of this General Order and CDPH requirements (i.e., identification of Best Management Practices implemented to achieve and maintain compliance);
 - ii. A copy of the approved Title 22 Engineering Report¹ submitted to CDPH and any recommendations or “conditions of approval” provided by the CDPH;
 - iii. A copy of the Producer’s established rules and/or regulations, as approved by the CDPH, for Distributors and Users governing the design and construction of recycled water use facilities and the use

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of recycled water in accordance with the criteria established in Title 22 and this Order;

- iv. A copy of the written (and signed) agreement between the respective parties responsible for the producing, distributing, and using the recycled water;
- v. A copy of the duty statement for the recycled water use supervisor responsible for the Use Area; and,
- vi. Verification that the recycled water use supervisor has attended training regarding the safe and efficient operation and maintenance of recycled water use facilities.

- k. To comply with this General Order, Producers, Distributors, and Users must implement the following treatment and control measures necessary to avoid pollution or nuisance and maintain the highest water quality consistent with the maximum benefit to the people of the state:
 - i. Implement treatment and use standards necessary to produce, as a minimum, disinfected secondary-23 recycled water and implement the applicable Title 22 Requirements;
 - ii. Identify and implement best management practices; and,
 - iii. Develop, maintain, and implement an O&M Plan; and Trained personnel (e.g., recycled water supervisor).

D. GENERAL PROVISIONS

1. The Producers or Distributors, shall document compliance with all conditions of this Order and of water reuse criteria in Title 17 and Title 22 of the California Code of regulations.
2. If any condition or criteria set forth in this Order conflicts or is inconsistent with any requirement set forth in any State regulation or State board Policy, the more stringent condition or criterion shall apply.
3. The Producers, Distributors (if any), and Users shall allow the Board or its authorized representatives, in accordance with Section 13267(c) or other relevant provisions of the California Water Code:
 - a. Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order;

- b. Access to and copy of, at reasonable times, any records that must be kept under the conditions of this Order;
 - c. Inspection, at reasonable times, of any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
 - d. To sample or monitor, at reasonable times, for the purpose of ensuring compliance with this Order.
4. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
- a. Violation of any term or condition contained in this Order;
 - b. Obtaining this Order by misrepresentation, or failure to disclose fully all relevant facts;
 - c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized reuse;
 - d. Endangerment to public health or environment that can only be regulated to acceptable levels by Order modification or termination.
5. The Executive Officer may add additional Producers at any time, pursuant to conditions specified in Provisions D. 1 and D. 2.
6. The Executive Officer upon a finding of non-compliance with this Order, may revoke a Producer's authority to issue Water Reuse Permits.
7. The Board will review this Order periodically and may revise the requirements as deemed necessary.
8. Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Board regarding the final Order. The petition must be submitted within 30 days of the Regional Board's action to the following address:

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State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

E. EFFECTIVE DATE OF THE ORDER

This Order takes effect upon its adoption.

I, Tracy J. Egoscue, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region on March 5, 2009.

Tracy J. Egoscue
Executive Officer

/DTSAl/

Attachments:

- A. Definition of Terms
- B. Title 22 Chapter 3 Water Recycling Criteria
- C. Monitoring and Reporting Program
- D. Notice of Intent (NOI) General Instructions and Form
- E. Best Management Practices of Additional Site Specific Requirements
- F. Standard Provisions Applicable to Waste Discharge Requirements

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